

A satellite image of the Earth from space, showing the Western Hemisphere. The United States and Mexico are visible, surrounded by the blue oceans and white clouds of the atmosphere. The image is used as a background for the text.

California Global Warming Solutions Act of 2006

Proposed California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit

California Air Resources Board
December 6, 2007

Overview

- Statutory Requirement
- Proposed 1990 Emissions Level and 2020 Emissions Limit
- Development of the 1990 Emissions Level
- Preliminary 2020 Projections
- Issues and On-Going Efforts

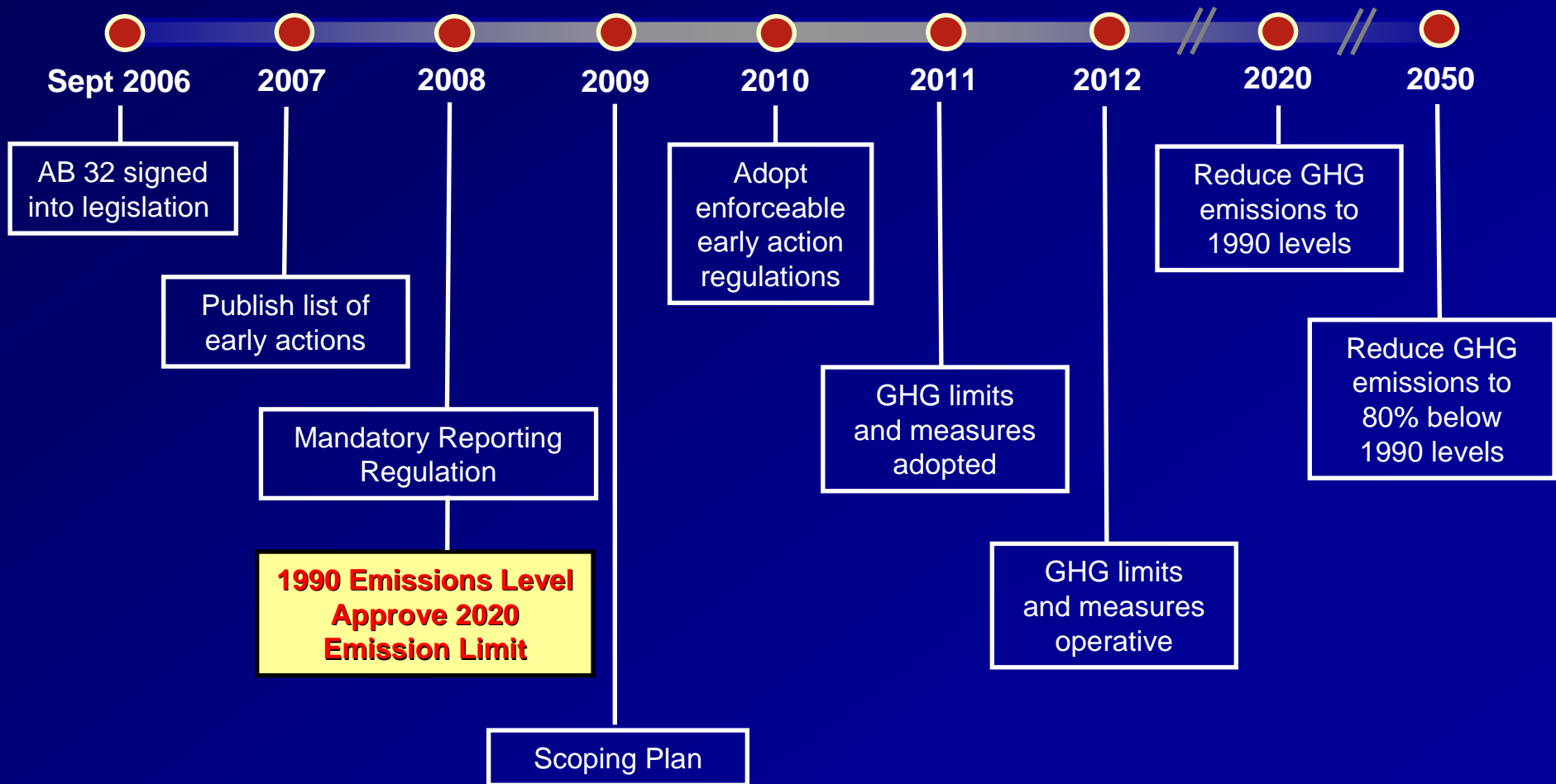


Statutory Requirements

- ARB to determine 1990 greenhouse gas emissions level
- Requires use of best available scientific, technological, and economic information
- Approve a 2020 emissions limit equivalent to the 1990 level



California Global Warming Solutions Act of 2006 (AB 32)





Development of the 1990 Emissions Level

1990 Emissions Inventory

- Includes emissions of six Kyoto gases (CO₂, CH₄, N₂O, PFCs, HFCs and SF₆)
- Expressed in carbon dioxide equivalents (CO₂e)
- Uses IPCC Second Assessment Report Global Warming Potentials
- Includes estimate of statewide sinks (sequestered carbon)



Goals for Improving 1990 Estimate

- Began with CEC 1990 estimates
- Improved data inputs and estimation methods
- Consistency with International Guidelines for GHG inventories



Improvements

- Improved emissions estimation methods
- Used facility-specific data in some categories
- Updated data inputs
- Created online documentation



Focused on Key Sectors

- Review focused on five key sectors (responsible for ~80% of 1990 emissions)

- Transportation
- Electricity Generation
- Industrial
- Forestry
- Agriculture

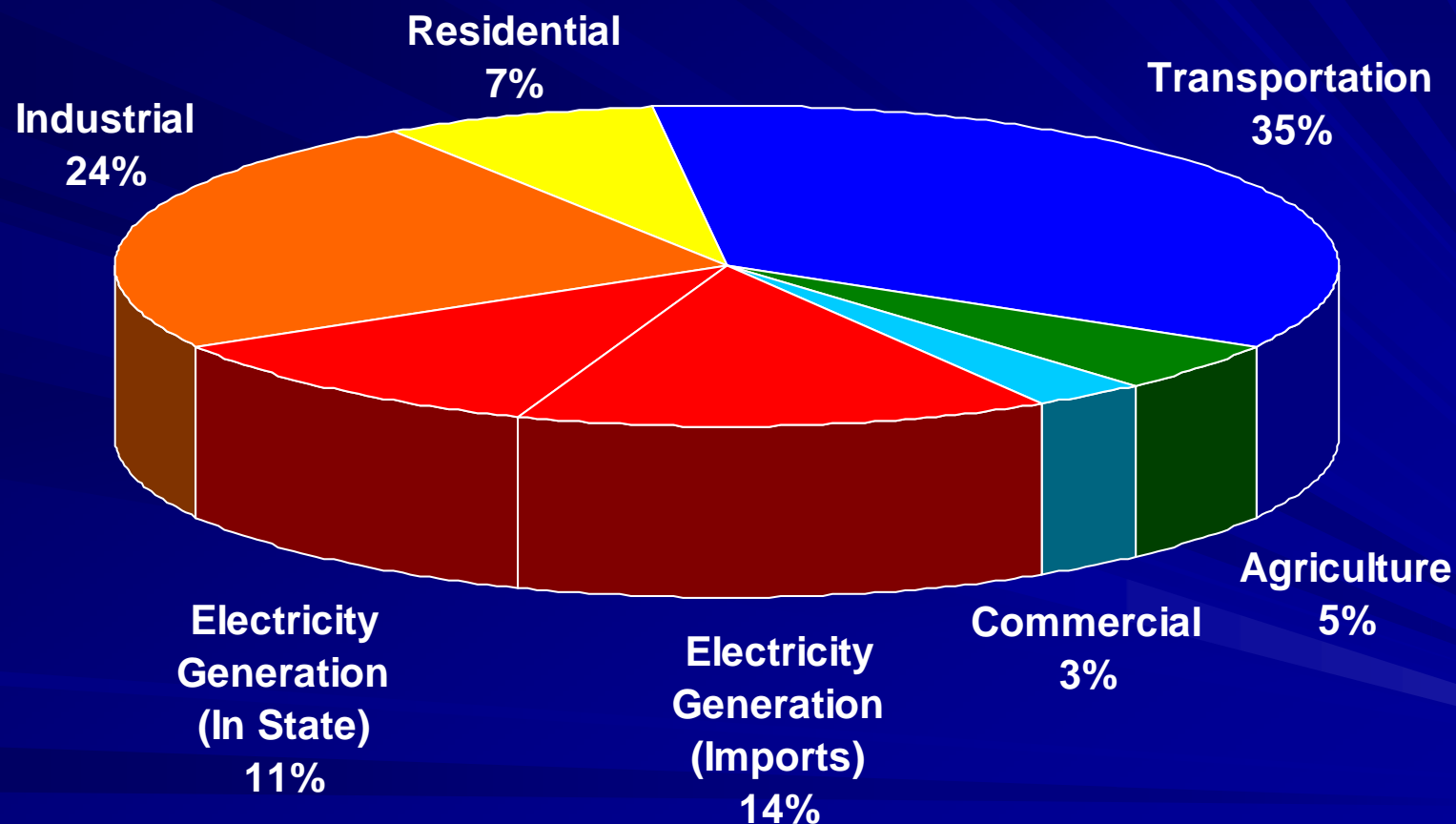


Stakeholder Input

- Five public workshops
- Nine technical meetings
- Additional follow-up meetings
- Input on data sources methods for estimating 1990 emissions
- Input on industry-specific changes over time



1990 Greenhouse Gas Emissions



Source: ARB GHG Inventory November 16, 2007



California Environmental Protection Agency
AIR RESOURCES BOARD

1990 Level Includes

- All in-state emissions
- Forestry sinks (sequestration)
- Emissions from imported electricity
- Emissions from shipping in California waters and intrastate aviation



Not Included in 1990 Emissions Level

- Emissions from shipping outside California waters
- Emissions from international and interstate aviation



Total Statewide 1990 Emissions Level

- 1990 greenhouse gas emissions limit is 427 million metric tonnes carbon dioxide equivalent (MMTCO₂e)





Preliminary 2020 Projection

Preliminary 2020 Projection

- Projected statewide emissions
- Difference between 2020 Projection and 2020 Limit determines emission reduction goal
- Projection of approximately 600 MMTCO₂e will be refined in Scoping Plan





Issues & On-Going Efforts

Power Sector Issues with 1990 Emissions Level

- Regional fuel mix assumptions for determining emissions from unspecified electricity imports
- Staff relied on CEC's recommendations and findings



Ongoing Efforts

■ Forestry

- Working collaboratively with CalFIRE, USDA Forest Service and others to improve emissions and sinks estimates
- Part of Scoping Plan process

■ Landfills

- Regulatory process to address inventory improvement and credit issues
- Part of Early Action measures



Recommendation

- Approve a 2020 greenhouse gas emissions limit of 427 million metric tonnes carbon dioxide equivalent (MMTCO₂e)

